

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"*O fortunatos nimium sua si bona norint
Agricolas.*" . . . VIRG.

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AGRICULTURE.

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"At a meeting of the Roanoke Agricultural Society, at Clarkesville, in the County of Mecklenburg, on Thursday the 7th July---" Voted that the thanks of the meeting be returned to the Hon. T. M. Nelson, for his appropriate address, and that he be requested to furnish a copy for publication."

TEST---

CHAS. L. WINGFIELD, Sec'y.

ADDRESS.

GENTLEMEN,

This being our first meeting since the adoption of a constitution for the government of this Society, I feel it a duty to say something in favour of our object, and to make a few remarks of a general nature, applicable to our climate and soil. An unexpected absence from home, of several weeks immediately preceding this meeting, must be my apology for the very few and desultory observations which I shall offer for your consideration; time was wanted to prepare any thing like a systematic plan.

In no country under heaven, is a race of men to be found, better qualified to govern themselves and pursue their own interests, than in the United States. Possessing healthful bodies and active, energetic minds, with the world of knowledge, political and scientific, open to their enterprise and industry; that must be a false policy which shall by means of premiums, protections or prohibitions, attempt to control the occupations of freemen. This proposition is too clear, to require it to be more than stated, to receive your concurrence. The union of these states, is the pride and interest of every American: let the government be careful, how it weakens this tie of pride and interest, by impairing in any manner the cord that binds us: man is a selfish being, and the surest way to enlist his feelings, is through his interests; let him calculate the advantages of any system or measure, and you immediately secure his active and zealous support. I will not trespass upon your time, by speaking of the effects of a separation of this union; which can never take place until the few shall predominate over the many, and the great interests of the nation shall be sacrificed to a clamorous action.

I lay it down as a maxim, that the less interference on the part of government with the honest pursuits and employments of its citizens, the better for both government and citizen. "Let us alone," is all we ask for, to be happy and prosperous.

Agriculture, Commerce and Manufactures, constitute the wealth, happiness, independence and strength of every nation. The first of the seems best suited for us; I mean the

great body of American people. With a boundless region of uncultivated soil, and with a climate adapted to every variety of vegetable production, a hardy industrious and enterprising population; the God of nature directs us to its pursuit; calling loudly in the voice of reason and of justice, to untrammel it from all restriction, save what is necessary for the support of government.

It is with pleasure I witness the increasing interest felt and expressed on this subject throughout Virginia and many other states.---I hope to see a spirit of inquiry yet more generally awakened, and the example of resistance to the mad

policy of protecting a minor branch of employment, to the manifest injury of all others; followed by the Agricultural and Commercial parts of the country every where. I lay before the Society a letter from Doctor Richard Feild of Petersburg, covering the articles of union, of the United Societies of Virginia, and inviting you to a union; you will take such order on the subject, as may seem best.

In this section of Virginia and our neighboring sister state North Carolina, we are exclusively Agriculturists, and it is admitted by all, that many defects exist in our system, to eradicate which is a principal object of our individual efforts—to communicate for the information of each other, our successive experiments, with their results, is a principal object of our association, and I hope that every member will feel himself bound, to impart to the society, the most minute information he may possess, or hereafter obtain, and not be restrained from doing so, by any false modesty or lukewarmness on the subject. I for one, will thank him for the effort, as well as the information.

That some change is essentially necessary in our preparation, culture or crops is evident, from the fact, that of the five years last past, four have been called bad crop years, and not without cause, for except in 1818, there has been a general demand for grain and provender for our stock; corn never selling for less than three, generally five, and sometimes seven dollars per barrel. So distant as we are from market, and cultivating a good soil, it is self evident, that to our system alone, may be ascribed the high prices demanded for grain, used exclusively within ourselves. When I say, there have been four bad crop years out of five in succession, I mean to say so, as it regards our crops of corn and oats, upon which mainly we depend for bread and provender for stock; it certainly cannot be said so of the crops of wheat and rye, they have been productive to overflowing; but our prejudices are enlisted against them, because we have not generally applied them to the sustenance of man or beast.

To surmount the obstacle, which the increasing dryness of our seasons presents, is a point

of vital importance. Without making any pretensions, to the adoption, or formation of such a system. I would suggest as a leading principle, deep winter ploughing, and free use of plaster of Paris. Of the first of these, little need be said of its advantages; but more of the means to effect it; and the first requisite is to encounter the expense of valuable and costly

ploughs; give me a good team in preference to a good plough, although no one sets a higher value on a good implement than I do. Of the various kinds of ploughs, which I have seen in common use, I would give the preference to Wood's patent, generally called Freeborn, manufactured chiefly by a man of that name. These may be procured of any size at the Penitentiary, or of Freeborn's Agent in Richmond. I should prefer those made at the Penitentiary, because they are there sold cheaper, and of equal quality. I would recommend the plough with iron beam, on account of strength and durability; there exists a mistaken prejudice against its weight; the difference in dimension, reduces it nearly the same, with the wood. It is generally admitted, that the coulter increases the draught, and I have seen no large plough in common use without, except the Dagon, so well known among us, the inefficiency of which in hard, strong or rooty land is as well known; constituting my principal objection to it, to say nothing of the cost of repair, and the difficulty of restoring its shape when once out of order. A Mr. McCormick of Fauquier County, has invented a plough called by his name, which I think calculated to remedy all the disadvantages ascribable to the Dagon, and possessing its greatest recommendation,

that of being without coulter. I will not attempt any description of it, as I hope in the course of a short time to receive one, which has been made for me some months by the inventor, and now on its way. If I am not mistaken in my calculation of its wedge and screw form, and deceived by those who are judges of plough work, it will answer our purposes better than any other I have seen. The Chenoweth plough of Baltimore, is good in its operation; but I think hard of draught and difficult of repair, by our tradesmen; I ploughed with one of these last winter in stiff, heavy, deep soil, ten inches deep and turned sixteen, with three good horses, the labour was heavy. I have never been able to get the Dagon in so deep, except in soft turf land; as a cultivator, I know no implement that surpasses the single horse Dagon, in soil already well broken; but I should prefer the small Freeborn, to be procured at the Penitentiary with cast shares, because of the diminished expense and its durability, although not better in its operation.

Of the benefits resulting from the use of plaster of Paris much has been said by others,

whose experience alone would satisfy me of its utility, had I not seen the effects myself: I would recommend to every one, liberal experiments. The cost of transportation, has heretofore, deterred us generally from the use of it: but I am fully persuaded, that in dry seasons particularly, we should be more than doubly remunerated for its cost, were we to apply it freely. I trust a better state of things is about to take place, and that we shall be enabled in a short time, to procure this valuable manure by the way of Norfolk, up the Roanoke, at a price that will ensure its general application to our crops. In the experiments which may be made, I would recommend the purchase of lump plaster, as the surest method to avoid imposition, sometimes unintentional, because it must be obvious, that long exposure to air and sun while in its pulverised state must tend to lessen its effect, by decomposing some portion of its active, stimulating qualities, and to this may be ascribed many of the disappointments we hear of. The pounding it in a trough with pestles, is a trifling operation, if the softer lumps be selected for that purpose. I know two gentlemen on James River, who use it in great quantities, and pound in this manner, all they do use. It is true they do not cultivate tobacco, and during the wet seasons, when we are managing that crop for market, they cannot employ their labourers better, than in pounding plaster.

If a system of preparation or cultivation be found inadequate to increase and make more certain under the favour of heaven, the present products of our plantations and farms, I can see but one other resource: a change of crops to suit our seasons. I am not fully authorised to speak positively on this point at present, but am inclined to suggest an opinion which is gaining upon me, the more I reflect on it. That our winter small grains, wheat, rye and barley, are the most certain crops we make, and that the spring grains, corn and oats, have become the least certain and productive. If this be true, as I think it is, the time is at hand when a revolution in our system is about to take place.—We should hail it as the forerunner of an improved husbandry, and see in it, the hand of that providence, who we often think is afflicting and distressing us, when he is blessing and providing for our wants.

FROM THE MASSACHUSETTS AGRICULTURAL REPOSITORY.

ON THE BAD

Management of Orchards.

Why are farmers so neglectful of their orchards? Our farms are portioned out into orchard, mowing, tillage and pasture grounds. This is so common a division, that a plantation of fruit trees must have been considered a useful occupation of the soil. But in what a neglected state are fruit trees to be seen in most parts of the country? Good orchards are, however, sufficiently numerous to shew that good management in this branch of husbandry is as profitable as in any other.

If some districts are well stocked with trees, others exhibit only a few, scattered along on the road side, old and in a decrepid state, the remnants of fine orchards of better days.

But, in respectable farming towns, in all parts of the Commonwealth, one may see, in the fields, apple and other fruit trees, bristled all over, from root to top,

with branches like whip sticks; hide bound, cankered and covered with moss. All the sap which, in this state of the trees, the roots can supply is little; if any, more than enough to feed the years growth of wood. At best the produce is but a small quantity of half grown degenerate fruit.

Many farmers think no attention necessary to young trees after planting, unless it be to keep the ground open round the roots for a year or two. The stocks are then left entirely to their own instinct of self preservation and natural tendency to grow and fructify. The innate vigour of the plant is all its dependence; its self renovating power is its only means of recovery from injuries inflicted by insects. If a tree survives early neglect, the untamed luxuriance of its top, seems to reproach the farmer for his want of care, as its redundancy of wood is incompatible with the production of fruit.

Bad cider is as common as poor orchards. Whether the great consumption of ardent spirits is the cause, or the effect, of the indifferent quality of the cider made in this state, the use of them is at least countenanced by it. Not a tavern keeper, or innholder thinks that the credit of his house is in any degree affected by the quality of the cider he may offer to his guests, however poor it may be. It is apology enough, that any better than his is rarely found in private houses. There are but two states in which this liquor is commonly seen. It is either syrup or verjuice. A farmer's family will gorge themselves with the first for about six weeks after the cider comes from the press, and then drink the latter all the rest of the year, unless indeed, its corrosive asperity should render a recourse to rum or brandy necessary.

Perhaps not many of the tables of our farmers, mechanics and labourers, are regularly supplied at meals with ardent spirits, as a family beverage. But the heads of families and hired men drink but sparingly of sour cider, knowing that such an indulgence as would satisfy their craving for liquid, would be attended with severe colic and other unpleasant effects. The complement of drink for workmen is commonly, therefore, made up with ardent spirits, taken at other times during the day. It would be going too far to assert, that the farmers, as a class, are intemperate in the use of ardent spirits. It is however, a subject of regret, that the practice is not more disreputable, and that young men in their full health and vigour, should so often require of their employers an allowance of a *half a pint of spirit per day as a necessary of life.* Sound cider would invigorate more without impairing the tone of the stomach.

But how few farmers have it in their power to offer the alternative. A good method of making, in the first place, and then of preserving, cider, is so rarely practised, that farmers are themselves to blame that they are at so much expense for rum, when there can be little doubt, that their hired men and they themselves would give a preference to cider, not sour. They have but to cherish their orchards, and to pursue *well known* methods in manufacturing and curing the liquor, to be relieved from a vexatious expense, and the still more vexatious evils of occasional, or habitual, intemperance.

Fruit is not a staff of life, but it is an innocent and refreshing luxury. Its medicinal uses give it also no inconsiderable value. Taken in all the variety which our climate admits of, it may be made to contribute largely to health, comfort and enjoyment. As it is not a principal article for the sustenance of life, neither is it one which requires any great or constant labour to secure. Compared with bread stuffs and culinary vegetables, and considering the labour bestowed on these, it is almost a free gift of Providence. Fruit trees may be grown in fields in which grain and vegetable crops are cultivated, not only without interfering, while young, with the processes

which these latter require, but so as to derive benefit from them without diminishing the ground crops. And when the trees have attained to their full size, the soil occupied by their roots, and the space shaded by their tops, if lost for tillage, will pay a greater profit from the trees, if well pruned and kept clean, than it would, employed in any other culture. The labour

in keeping the trees in order, is very trifling, if bestowed seasonably. Most of what is required should be done in the spring, before the frost leaves the ground and other business is pressing.

It is well known that fruit trees may be cultivated with advantage in ground too rocky for tillage, without losing the use of it as pasture, provided stakes are set to keep off the cattle. The soil must, however, be kept open about the young trees to obtain a free growth. It is unnecessary to say that manure may be applied with advantage, and that the value of it will not be lost when so applied. The declivities on the south sides of hills, which are too steep, or too rough, for the plough, afford fine situations for fruit trees. So that on many farms, extensive orchards of various kinds of fruit may be had, without interfering with, or diminishing the amount of other crops.

The varieties of the several species of fruit which may be brought to perfection in this Commonwealth, are numerous, and are cultivated with success near the coast, but are little known in the interior. They are, however, common enough to furnish scions for every county in the state. Our farmers have only to decide that they will turn their attention to the raising of fruit, and they will have no difficulty and little or no expense in obtaining scions of the best. But it ought at the same time to be recollect, that as the improved and most delicious fruits have come of careful cultivation, and are derived from originals of very ordinary character, so if the trees are treated with neglect, these fruits will degenerate and in a short time be no longer cognizable as the same.

It may not be universally known, that by taking off a portion of the fruit from a healthy tree at an early stage, what remains will become larger and be finer than if the whole were suffered to remain—because more sap is at liberty to be expended upon them. Keeping the earth loose about the roots, and manuring produce the same effect—enlivening the roots and encouraging them to put forth more fibres, and in consequence a greater quantity of nutrition is absorbed, of which the fruit will get its proportion.

Whatever promotes a free circulation of the sap, as cleansing the bark from scales and scraping it to make it tender and yielding, and whatever helps to perfect the maturation of the sap in the leaves of the tree, by giving them a full exposure to the sun and air, as by cutting out the central branches when the head is too bushy, and giving it an expanded form, promotes the growth, general health and productiveness of the tree.

It would require little time to satisfy any rational mind, that the caterpillar, the canker worm and the slug, by devouring the leaves, destroy a part of the machinery necessary to the work of vegetation and fructification. The tree must therefore decline if they are permitted to invade it, and to keep possession year after year.

A large stock of fruit trees may be raised with very little trouble by fencing in a few rods of good ground as a nursery, and sowing pomace on part, and reserving part for the seeds or stones of other fruit. There should be space enough within the enclosure to admit of transplanting the shoots the second year. The following year they will be in a state for budding or for grafting. In the mean time, the farmer may learn by little inquiry where the buds and scions may be obtained when wanted.

This nursery will not only supply his new plantations, but afford fine thrifty trees, to take the places of such as decay in the orchard. He will thus avoid the effects of the ignorance, or deceit, of nursery men, whose trees have frequently proved not to be of the kinds for which they are sold. This is true in many instances of trees which have been ordered from New York.

We have before adverted to the number of fruit trees which may be seen scattered over the face of the country in the more populous districts. But from the languishing state in which they are, seem to have been thought worth merely the trouble of planting. If, indeed, they are not worth the little additional care of pruning and cleaning, they are but cumber-

ers of the ground; and both for appearance and use the soil had better be converted to some other purpose. For what is more unsightly than a neglected orchard! and as to profit, one might as well keep a flock of scabby sheep, which can never come in contact with bush, or briar, or splintered rail without leaving wool by the ounce behind them. A lean ox with a broken limb, fit neither for work, nor slaughter, is another emblem of neglected fruit trees.

The cultivation of fruit for the market is a minor object in parts remote from large towns. But in districts where good fruit would command a ready market and good price, there prevails an unaccountable inattention and indifference. On some farms, in a condition otherwise respectable, and with orchards of from one to two hundred trees, all that is obtained is about twenty barrels of cider, a few barrels of eating apples, a bushel or two of pears, and a small quantity of the stone fruits. Again, on a few other farms with orchards of the same number of trees of equal age, the harvest yields ten times as much. Not that in the latter case the year's wages paid out amount to a larger sum, or that more hands are employed. But what hands there are, are better directed. *The care of trees is considered by the proprietor an important branch of husbandry, and as such is attended to as systematically as any other branch.* In truth the whole difference in the result of the year proceeds from this, that the farmer in the one case inspects his orchards carefully in the spring and puts them in order, while the farmer in the other throws away the same time in idle conversation or listless inaction, waiting for the frost to be gone and reserving all his strength for the plough.

The length of time required to bring fruit trees into a bearing state—the accidents to which they are liable—the uncertainty of the harvest—and the smallness of profit at the best, these are thought, by many, sufficient objections to the cultivation of orchards, at least with any great degree of care.

The first objection may be answered by a direct appeal to the farmer's sense of interest. What, sir, will it cost you to purchase and to set out your hundred young trees and to take proper care of them the first year? Will not your farm be worth the second, third, and fourth year and so on, as much more to sell, or to keep for yourself, or your children, as it will have cost you, in the mean time, to take good care of your young orchard? And when it shall have come into full bearing, at twelve or fourteen years, will you not be indemnified by the increased value of your farm, which a productive orchard will give to it? Will not your profit be fifty fold in proportion to your expense?

But, you say, your trees are liable to premature decay and to accidents? A thriving nursery, which costs little, will supply losses which care could not prevent.

Then comes the uncertainty of the harvest.—But what harvests are not uncertain? You toil and waste your strength in the corn field; and yet your harvest is uncertain. A bad fruit year comes, and a few days labour in pruning and cleansing your trees is all you can have lost.—Even this is not lost, for the quantity of fruit, even in a bad year, will more than pay you. Besides, commonly, the succeeding year is very abundant in fruit.

But there is the fourth objection—the smallness of profit. The word profit is a relative term. He who gains ten cents on one dollar, makes a greater profit, than he who gains five per cent, on one hundred dollars. Calculate what it has cost you to raise your orchard and to make your cider—to gather and barrel your fruit for the market, and if your cider will bring but nine shillings the barrel and your fruit but two dollars, the absolute gain may be twenty per cent, taking the rent of the land employed into the account, although the whole amount received may not be a tenth part of the income of the farm. The probability is, however, that from a large stock of trees of various kinds of fruit, the profit may amount to a considerable sum, and thus from a very small original cost, the sales of fruit, may come to be the principal income of a farm, in other respects in good condition.

In any part of the Commonwealth a fruit harvest dantly throughout the country, sometimes climbing to the top of the highest trees, (a most important natural indication) pink root, clima root, sarsaparilla, cassena, black poplar or cotton tree, sugar maple, ginseng, persimmon, live oak, cedar, honey locust, sumach, and Indian corn, or maize (zea.)

It is manifest from these natural subjects of the vegetable kingdom, that nature did not enable Great Britain and Ireland to give our vast important region, south of $35^{\circ} 8'$ its lessons of culture from their parts of Europe north of the 50th degree of latitude.

It is accordingly found, on page 34, of Mr. Drayton's work, that *Rice, Cotton, Tobacco, Indigo, the Almond, the Olive, the Fig, of several kinds, the Pomegranate, the Okra, the sweet and sour Orange, the Lemon, the Lime, the Palma Christi, the Tallow tree, and, of late, varieties of the Sugar Cane*, foreign plants unknown among the cultivators of Europe north of 50° , have been introduced from countries more congenial with the climate of this Carolinian, western and more southern district. The attempts to introduce the Cane, while Great Britain held the Floridas, are known to have been abortive. In consequence of the disorders in the French Colonies, Mr. ——, a French gentleman formerly of —— St. Domingo, introduced that valuable plant into Louisiana. Our productions which rose from naught to 10,000,000 pounds in 1810, is computed at 36 millions of pound weight in 1819. The progress in cotton, since the year 1786, has raised it to 120 to 140,000,000 of pounds, and it would have been far greater, but that sugar employed many of the labourers, and we happily abolished the importation of slaves. These observations are not made in an unfriendly spirit as to any foreign nation, but to prove that the United States have profited by the observation, consideration, and capacities of their own country: and by a due attention to the nature productions and operations of all foreign nations, as well uncivilized as polished, ancient and modern. We know of the unrivalled distinction in irrigation of Upper Italy, and the fame of Germany, Switzerland and France, which grew up under half a score of independent jurisdictions, while Britain employed her waters in mills and canals, or suffered them to run unused into her navigable rivers. We have attended to the culture of *Rice* from the vale of the *Po*, and Turkey into its original Asiatic birth place, and it will be seen in page 115, that the valuable, large, white rice, for which South Carolina and its neighbours are so justly famed came to us, without book or direction from the most savage of the African islands, and from the fields of Hindostan, then entirely under their native Princes, in 1688 and 1696! Rice was

at first planted on uplands; afterwards in swamps.—All our country, from the Roanoake south will produce swamp or upland rice, which may be irrigated like the rice of Piedmont and Lombardy; the grape vines of Madeira, and the orange trees of Portugal.—So long ago as the year 1691, the legislature of South Carolina adopted measures for the invention of machines, engines, and mills for the aid and benefit of agriculture, and had reached a perfection in 1800 not only unequalled in the rice culture of the world (page 121,) but far superior, in effective complication, to any system of machinery ever before produced, by the ancient or modern world, in aid of the cultivators preparation of any kind of landed production. Our very valuable author's own account of the introduction, progress and completion of the *Rice* cultivation, with all its aids, (page 115 to page 127,) is strongly recommended to the owners of lands, in our five or six southern degrees of latitude, to every amateur of the art, and to every American, who desires correctly to vindicate the genius, talents and character of our country in this its first great permanent pursuit: its highly diversified agriculture.

Indigo follows next in Mr. Drayton's specification. We learn from him, that seventy years ago, about the year 1745, this colouring plant, the first in the world, was introduced into that state by its enterprising planters. At the end of two years these energetic cultivators, besides the supplies of their household manufactures, and their sister states on this side of the Atlantic, sent 200,000 pounds weight to England. Its culture was pursued with some anima-

FOR THE AMERICAN FARMER.

THE AGRICULTURE OF THE UNITED STATES.

NO. I.

Opinions prevail among persons in Great Britain of high claims to agricultural literature, that we are far behind them in our knowledge of that art, and that we are indebted to them for the portion of that knowledge which we possess. It is proposed to offer to the American and to the foreign world, some illustrations of our agricultural course, which will at once place us in a fairer light, and which may assist our own young cultivators, and liberal foreigners, who may settle among us, in forming their future landed establishments.

We shall first invite the attention of our readers to "A view of South Carolina," written in the year 1802, by John Drayton, Esq., then Governor of that state. This gentleman has united in the circle of his engagements the profession of a planter or farmer with the practice of the law, subsequently the station of a judge, and at one time governor of his native state. We omit to notice all the interesting objects in his work, which do not immediately relate to the productions of the earth, remarking only, that they merit the perusal of the statesmen, the economists, and the scientific of our own and foreign countries.

From the actual and proper latitudes of South Carolina, Mr. Drayton's Book relates to all that zone of our American continent, which lies between 62 and 35° degrees and 8 minutes of north latitude, embracing parts of Georgia, Alabama, Louisiana, Mississippi, and North Carolina, and the country west, of the meridians of 32° to $35^{\circ} 8'$.—The lands, within that extensive belt, and all our lands south of them, have the agricultural capacities and practice indicated as to South Carolina, in Mr. Drayton's view of that state.

His catalogue of native plants occupies twenty-four pages, among them are the Walter Grass, the crab or crop grass, the oat grass, the rye grass, wild madder, wild flax, the buck eye, and the silk grass, the roots of both which are used, in lieu of soap; the Indian fig or prickly pear, the common black cherry various sloes and plums, the raspberry, blackberry and strawberry, the Carolina alspice, trefoils, wild pea, water oats, 22 different oaks, black walnut, 16 various pines, cypress, very large, wild olive, mulberry, myrtle (cerefera) several species of grapes (*Vitis*) grow abun-

tion and force in all the lower, and part of the middle country, that its planters, in many instances, made for-hitherto been little evinced, and where such powerful tides.* The excitements to the cotton culture in 1786, were strongly felt on both sides of the Savannah river, in Georgia and South Carolina. The indigo culture of British India, which is like one great estate of 100,000,000 of coloured people, directed by 31,000 whites, civil and military, has been carried by the dictation of the government, into such a form and course, that 7 or 8 millions of pounds of indigo have been made there, for exportation, in a single year.—Partly from this powerful competition, but in a considerable degree from the temptation of our new cotton and sugar cultures, indigo is now little planted, in comparison with former times. The price and excellency of *Rice* occasioned it to preserve a greater share of the labour, than indigo. The lands for rice were not so fit for either cotton or sugar. But the indigo lands would often produce sugar, always cotton. This intelligent versatility in our southern cultivators is much to the honour of their understandings and their energies. Similar remarks occur, as to the culture of tobacco, which was formerly little pursued to the southward of the waters of the Roanoke and Neus Rivers. The generous hospitality of the more southern states to their northern compatriots in arms, carried many tobacco planters, after the revolutionary war, into the counties of South Carolina and Georgia, where this new object of their agriculture, then high in the markets of America and Europe, was extensively adopted from their own good sense, familiarity with rural pursuits, and the absence of those governmental restraints, which prevented the maritime European states from proceeding, *pari passu*, with us in this branch of agriculture in those places, where soil and climate permit. The consequence is, that foreign cultivators and books, and particularly British cultivators and books, have not been our instructors and manuals on the subject of the tobacco planting, more than those of rice and indigo.

CINCINNATUS.

The 6th day of the month of independence, 1820.

* The European cultivators had no knowledge, or practice in indigo to give to us. The woad raised in Great Britain, is slightly indigoforous, but there is no trace of woad cultivation on the South Carolina zone.

ABSTRACT OF ACCOUNTS OF

Northern Cattle Shows and Fairs.

NO. IV.

Communicated for the Farmer, and published for the consideration of Southern Agricultural Societies.

The last Show of the New York Societies, of which any account could be obtained is, that of the county of Greene, and being its first, of course an exhibition, equal to those of the longer established Societies, could not be expected; what was shown however, may be considered as highly creditable to the concerned, and demonstrates, that however some farmers may wish to "be let alone," and to have permission to go on in the old jog trot, that spirited minds only require a proper stimulus to excel. *That stimulus is a premium publicly awarded by a respectable society.*

The exhibition of domestic fabrics, which it is to be hoped will never be forgotten in any exhibition of an Agricultural Society, is said to be very respectable.—Mr. C. Benton obtained a premium for 87 bushels of Swedish Turnip, or Ruta Baga, raised on less than one-eighth of an acre, one of them measured 22⁴ inches in circumference. A Beet 14 lbs. in weight, was shown. The best of two acres of Corn, yielded 175 bushels to the acre—2d best, 146 bushels.—215 bushels of Potatoes were raised on half an acre.—Such produce in one year's preparation by members, not yet fairly "wound up," promises great things in future times.

It is gratifying to see the Agricultural spirit progressing in the states, where a disposition to produce

any thing beyond the common routine of crops, has obstacles as soil and climate have interfered with the industry and zeal of those who were really desirous to improve.

Since the shows held by the Agricultural Societies in Massachusetts, Connecticut, and New York, the society of Cheshire county, New Hampshire, has led a show, on the 4th January last, and the Executive Committee have announced the following premiums: The first premium may probably surprise many farmers in Pennsylvania, who may allow that the quantity of wheat for which it was awarded, was merely a passable crop, but he must recollect that New Hampshire has hitherto never been considered a wheat growing country; that what little flour they used, was imported from the middle and southern states. The crop therefore of twenty-six bushels of wheat to the acre, was highly meritorious, and even in the more genial climates of the United States, a similar crop would be accounted a great one.—Thus, in Virginia, (the members of whose Agricultural Societies are now meeting to pray Congress for permission to "manage their affairs in their own way," and not to encourage domestic manufactures) ten bushels of wheat is the most common crop, and such will be the case, so long as they determine to continue their wretched management, and neglect to adopt the good practices of their northern fellow citizens.

At a meeting of the Executive Committee of the Cheshire Agricultural Society, held at Salem Sumner's in Keene, on the 4th day of January, 1820, the following premiums were awarded on Agricultural products, viz:

To Ezra Jones, of Claremont, for the greatest quantity of Wheat raised on one acre of old ground, being twenty-six bushels, \$10,00

To Silas Reed, of Plainfield, for the greatest quantity of Indian Corn on one acre, being 102 bushels and 3 quarts, \$10.00

The other claimants for premiums on corn were Samuel Grant, of Walpole, who raised 90 bushels, Thomas Bellows, of Walpole, who raised 78 bushels 6 quarts, and Joseph Stephens, of Claremont, who raised 71 bushels.

To Samuel Grant, of Walpole, for the greatest quantity of potatoes on one acre, being 528 bushels, \$10.00

To Alexander Grout, of Acworth, for the greatest quantity of Flax on one acre, being 468 pounds, \$10.00

The other claimants for premiums on Flax, were, Prentiss Sholes, of Claremont, who raised 460 pounds from one acre. Obadiah Shumway, of Charlestown, who raised 450¹ pounds from one hundred and twenty-seven rods of ground. This, although being the greatest growth, yet being less than one acre, was not considered as entitled to premium.

To Thomas Bellows of Walpole, for the greatest quantity of white beans, being 35 bushels and 6 quarts, \$5.00

By order of the Committee.

R. VOSE, Chairman.

ISAAC HUBBARD, Sec'y.

The genus of Agricultural improvement, passing from the eastern part of our continent, without stopping in Pennsylvania, (the former favourite seat of her residence) visited the western states, whither the tide of population is rapidly progressing. Kentucky has set the first example of an Agricultural Society there; and here follows a short account of a very full and interesting detail of a Show; it is believed the second which was held on the 30th Sept. at Capt. Fowler's, Lexington. The following animals were exhibited:

By Mr. Smith—An imported bull, "Bright," of the long horned breed, 4 years old.

By Henry Clay, (Speaker of the House of Representatives) An imported bull, "Ambassador," of the Herefordshire breed 4 years old.

By N. Hart—An imported bull, "John Bull" of the short horn breed.

By John Hart—An imported bull, "Prince Regent," of the short horn breed.

Mr. Smith obtained the premium, a silver Cup for the best bull.

By Stephen Fisher—A fine red bull, 3 years old, son of captain Fowler's bull "Buzzard," for which a silver Cup was awarded.

By Robert Crockett—A bull, nearly 2 years old, from Capt. Smith's imported cow of the Teeswater breed.

By W. T. Banton—A bull, nearly 2 years old, son of Mr. Munday's imported cow Mrs. Motte, of the Teeswater breed, whose sire was Tecumseh, an imported bull of the Holderness breed.

The premium was awarded to Mr. Crockett's bull, by majority of one only. A proof of the general excellence of the stock.

By D. Harrison—A bull calf, sire Ambassador.

By H. Clay—Do. same sire, and an imported cow.

By Wm. Smith—A bull calf, sire, San Martin, an imported bull of the Teeswater breed, dam, an imported short horn cow.

By John Spears—A bull calf, of Patton's old breed.

By E. Warfield—A bull calf, by Comet, an imported bull of the short horn breed.

The committee awarded the premium of a silver cup.

To D. Harrison, for his bull calf, by a majority of one only.

By W. Smith—An imported cow, 4 years old, of the Durham breed.

Some fine horses, promising colts, and farm stocks were shown. Some home bred, and others the produce of the sires and dams before-mentioned—several of which obtained premiums of silver plate.

An uncommonly fine eight months old calf, by a buffalo (bison) bull, and a cow, the property of Mr. George Thompson, was also shown. This is here particularly noticed, because our anatomists have pronounced such a cross injudicious, by reason of the bunch upon the back of the bull; but the fact was inserted in print 20 years since, that in the early settlement of Ohio, such crosses had been effected, and that the produce were animals of uncommon strength. It would be desirable to know whether they are common, and whether no difficulty in parturition takes place, on account of the dorsal protuberance.

The excellent imported stock introduced into Kentucky, during 3 or 4 years past, promise to effect a complete revolution in the farm stock of that state.

Some of the best blood of England, as the foregoing account shows, has been transferred to the vicinity of Lexington, where each of the two bulls that arrived in Philadelphia, it was said, sold for one thousand dollars at public auction. And when we take into consideration the high price of the animals in England, the expenses of freight, insurance, and of getting them to Kentucky, too much praise cannot be given to the spirited gentlemen who imported them. They have added to the solid riches of their country, and deserve the thanks of the farmers of Kentucky in particular, and praise from us all. Now that they have such fine breeds in their state, it is to be hoped that they will take care of them, and by a due provision of juicy winter food, secure the constant flush of milk to their breeding cows, and regular growth to their young stock. If they do not, they will find that there is much truth in the old English proverb, "that the breed goes in at the mouth." The size and very form of the animals will diminish and alter, by bad and irregular keep, by overfeeding in summer, and scanty fare in winter. The stimulus to exertion will be great, if they continue their Society and annual shows, and that they may do so, is our sincere prayer. It is to be hoped also, that they will have an eye to the respective merits of the various breeds in their possession, and will duly inform the public of them; particularly as to the great points of early maturity, with good proof; disposition to throw flesh and fat on the most valuable parts; fair return of milk, for the quality and quantity of keep, and disposition to hold it; and last, though not least, let them beware of the improper and hasty practice of the American farmer, in permitting the unrestrained intercourse of the heifer with the male, however young—none should be permitted until the former are two years old. Inattention to this great point will endanger the life of the female, and infallibly deteriorate the produce. This is the dictate of experience, whatever opinions may

be formed from occasional success from premature births.

Domestic Fabrics.—Several pieces of excellent carpeting, were exhibited by different persons.—Mrs. John Hart's had the superiority in point of texture, but taking into consideration all the circumstances, particularly the important one of colouring, Mrs. Warfield's was preferred, and obtained the premium of a silver cup. The industrious and economical ladies of the western country, would find it their interest to possess *Professor Cooper's Treatise on Dyeing*, published by Dobson Philadelphia, which will teach them new processes, and an economical employment of the materials in common use. The best piece of flax linen was exhibited by L. Saunders, unbleached, spun by Mrs. Gillespie, and wove by Mr. G. for which the premium of a silver cup was awarded Mrs. Hart shewed a piece beautifully bleached. The same lady carried the premium of a silver cup for the best piece of table linen. Several pieces of Jean and Cassinets were shewn. Mrs. M'Kenney, Jr. obtained the silver cup far the best sample of Jean. Mrs. J. Hart's was the next best.

The gallant Governor Shelby is President of this Society, and from the spirit already shewn by the members, great things may be in future expected from them.

On the Hessian Fly.

AND ON THE PROPER DEPTH OF SOWING

WHEAT—No. IX.

TO THE EDITOR OF THE AMERICAN FARMER.

Essex, March 31st, 1820.

DEAR SIR,

In your 16th number of volume 1, you published a letter from Dr. Merriwether of Amelia to "The Virginia Society for promoting Agriculture," on the subject of wheat. This gentleman is now dead, but since his communication will live as long as your paper, and the proceedings of our society continue to be read, it becomes important to agricultural people, that opinions emanating from so respectable a source as the Doctor, should be controverted, if they contain any thing which may lead to error. That they do so, I am induced to believe, from circumstances hereafter to be mentioned.

You may, perhaps, remember that the Doctor in the course of his letter, spoke somewhat with an air of ridicule, of certain opinions in relation to the sowing of wheat, which had been advanced by a writer in the Richmond Inquirer, who assumed the signature of "A King William Farmer." This writer, who turned out to be a much valued acquaintance, was not very well pleased, as you may readily suppose, with what he considered rather cavalier treatment. But instead of relying on angry invective, as is too commonly the case under similar circumstances, he chose the wiser course to prove himself right by several minute and accurate experiments. The results of these he made known to our former Vice President, of which as soon as I heard, I voluntarily offered to communicate them for your paper, upon seeing that you had published Doctor Merriwether's letter. A variety of circumstances, however have prevented me until now from addressing you on the subject; but before I proceed to a statement of the experiments themselves, permit me to assure you, that the gentleman who made them is one, than whom we have very few more successful as farmers, and none more esteemed as men. His veracity is unimpeachable—his talent for accurate and laborious observation equal to that of any agriculturist in our country—and, in short, whatever he asserts is as much to be relied upon as any oral testimony can possibly be.

Let us now state his experiments. Some time before the seed stems appeared, he took up several samples of wheat plants growing at different depths, together with some bunches of volunteer wheat, which came up in August from straw previously spread upon cow-pens. These bunches were numbered 1, 2, 3, 4—the last being the volunteer wheat. They were all sent to our former Vice-President, but

unfortunately, I have been able to get only one plant of number 1, which I now enclose to you.* It furnishes an ocular demonstration, that Mr. Merriwether was wrong in asserting that "if the seed is placed any where between the surface, and two inches below there will be only one set of roots and branches." This plant you will perceive, has two sets both of Roots and Branches; although it is evident, that the grain could not have been more than an inch and a half or three quarters below the surface. Number 4, the volunteer plants demonstrated the same fact. Number 2, proved that the seminal stalk was destroyed by the maggot; the root had put forth new and vigorous shoots capable of producing wheat. Number 3, shewed the total destruction of life in the plants covered very shallow, when the fly had penetrated to the full depth. The "King William Farmer" in still farther confirmation of the opinion which he had at first expressed,—that deep seeding was better precaution against the fly than "grazing,"—in the country where he lived, examined with great care a part of his wheat field, in which he had observed, that more wheat was injured in the centre of his beds than near the edges, where it was buried deepest. He removed the earth very carefully from several of the stalks which appeared dead near the centre of the beds, as well as from several of those near the edges, which were living. This operation discovered, that almost all the wheat covered shallow, was dead whereas that which was buried the deepest,—after losing the seminal stalk by the fly, had put forth from bottom, fresh and strong shoots, which (to use his own words,) "did actually make good wheat." But as if these facts were not sufficiently conclusive, the "King William Farmer" has recently furnished me with five separate bundles of wheat plants, all going to place his opinion beyond the possibility of being controverted. These bundles I now send you, together with the first mentioned plant, number 1, which to distinguish from the rest, I have marked "number 1, old." I hardly need recommend them to your careful examination, as they go very far towards settling a much controverted point in regard to sowing wheat. Numbers one and two, demonstrate the incorrectness of Dr. Merriwether's assertion "that if the seed is placed any where between six inches and two, from the surface, there will be a set of coronal and seminal roots and branches; but if the seed is placed any where between the surface and two inches below, there will be only one set of roots and branches, and these immediately progressing in their different directions from the seed." Number 2, also proves, that when the maggots destroy the seminal stalk, the root below the retreat of the maggot will force out new shoots capable of producing wheat. Number 3, proves the effect of the fly on shallow wheat, and shews, that the maggots easily find their way to the embryo crown, between the points marked E and B in Doctor M's drawing, to the destruction of the plant, if no coronal roots are formed. Number 4, evinces the instinctive propensity of the maggots to descend as near to the crown of the plant as they can. Number 5, demonstrates that a double set of roots and branches is no proof that wheat is covered an unnatural depth, and also shews that the maggots do not penetrate the caudex to the embryo crown, when that is so far below the surface as the plants in this bundle evidently prove it was. That all the plants in each bundle, were at first buried considerably deeper than their present appearance would lead us to believe, the "King William Farmer" proved by the following experiment. He sowed some Chili

wheat about the 10th of October last, in a small spot of well prepared earth, and regulated the depth of each grain by a graduated stick,—depositing them two in a hole, from one to three inches. Upon examination, about the first of this month he found the wheat which had been buried three inches at first, was then out more than an inch and a half below the surface—so much had the soil, which was stiff and livery, settled down.

These are the facts furnished by the King William Farmer in confirmation of the opinion which he had at first advanced; "that early and deep seeding was certainly a better precaution in his soil and climate, against the fly, than "grazing," or perhaps any other mode, and probably would prove so, in the other soils and climates of Virginia." The soil in the section of country where he lives is generally poor, and has a considerable mixture of sand: yet his crops of wheat for 1817, 1818, and 1819, have exceeded by about one thousand bushels the crops produced in any three preceding years, although his latter practice has been to sow early and deep. Whether his facts and conclusions agree well together, must be left to every man to determine for himself;—we must all agree however, that they merit the closest and most attentive examination. Dr. Merriwether, for whose character I entertain the highest respect, without having any personal acquaintance, was, I am confident, entirely to be relied upon, for any matter of fact, which he would publish as such. But his opinions and conclusions were, I presume, no more exempt from error, than those of other equally respectable men. An attentive revision of his letter, and of the communication which he assailed in it, has satisfied me of two things:—The first is, that he misunderstood the "King William Farmer," in thinking that he had laid down, as a universal proposition, what he only maintained from his own experience, to be true in regard to his particular section of country; and the amount of his wheat crops for several years which have been continually increasing in defiance of the fly, affords a tolerably conclusive proof, that as far as it goes, his opinion is correct. The second conclusion which this investigation has produced in my mind is, that the Doctor's drawing, like many other Diagrams by which we undesignedly deceive ourselves and others,—is an illustration, rather than a fact. In other words, it is not a representation (if I understand his letter) of wheat plants, actually sown by him at different depths, and examined at that particular stage of their growth, with a view to ascertain the truth of conjectures previously formed on this subject;—but it is rather a delineation of an image formed in the mind's eye, and there accommodated to certain opinions, before adopted by the writer, for the better elucidation of which he uses this device.

I can in no other way reconcile the palpable contradictions which appear between him, and the "King William Farmer";—both of them being men of unquestionable veracity;—the first producing only a drawing in confirmation of his opinion, whilst the last exhibits a number of actual wheat plants in a state which appears irrefragably to refute all the conclusions deduced from the aforesaid paper delineation.

I trust sir, that you will readily believe me incapable of being actuated, in the smallest degree, by a spirit of controversy in what I have written, or that my regard for a living friend, can have led me to aim at depreciating departed worth, in the character of a gentleman with whom I had no personal acquaintance. Amicus Plato, sed magis amica veritas, is my motto; and I trust will ever regulate my practice.

My sole motive for what I have said, is to prevent, so far at least, as depends upon me, the proceedings of a society in whose success I feel a deep interest, from being instrumental in disseminating erroneous opinions connected with the objects of its institution. If any such shall at any time find their way into our Pamphlets, or Books, it is the duty of every member, I think, to endeavour to show wherein the error lies. That kind of pride which makes us persevere in wrong, from the shame of acknowledging it,—is of all others the most pernicious in its con-

* We have caused to be made a correctly engraved representation of these plants, and the reader will see that it justifies Mr. Garnett's conclusions. The *smut* which we apprehend will prove even a more direful pestilence than the fly—will, we hope, undergo the most rigid investigations of gentleman farmers. How can men of inquiring habits, more usefully or pleasantly spend their leisure moments than in prosecuting investigations, so essentially connected with their prosperity?

Editor American Farmer.

sequences: it is in fact one of the greatest obstacles to improvement in every art and science, the friends and lovers of which should make a common cause in waging war against it—usque ad intermissionem.

There are some general reflections suggested by this variance of opinion between two good farmers, which I beg leave to submit for the consideration of our brother agriculturists. Upon careful examination we shall find that the same plant, be the kind what it may be, will, where nature (who never does journey-work) has the entire management protrude its roots deep or shallow, in proportion to the nature of the soil. Hence we should think it would suggest itself to every one occupied in planting or sowing, that they could not do better than to practice the lessons of this all wise and bountiful Counsellor, by varying the depth of whatever they sow or plant according to her unerring rules. All that man has to do, is to find out, as well as he can, what these rules are, for when he does he can no longer go wrong. If there be any truth in these remarks, in no particular depth of sowing wheat, or indeed anything else, will answer equally well in all soils and situations; but each man must ascertain it for himself, where his farm differs materially, either in situation or soil from the farms of those, who have given him the result of their experience. This accuracy I think, we may venture to say, no farmer has yet attained; so that the subject is still open for farther investigation. It happens, however, very fortunately for us, considering the insuperable difficulty of human precision in such matters, that a beneficent Providence has so ordered in

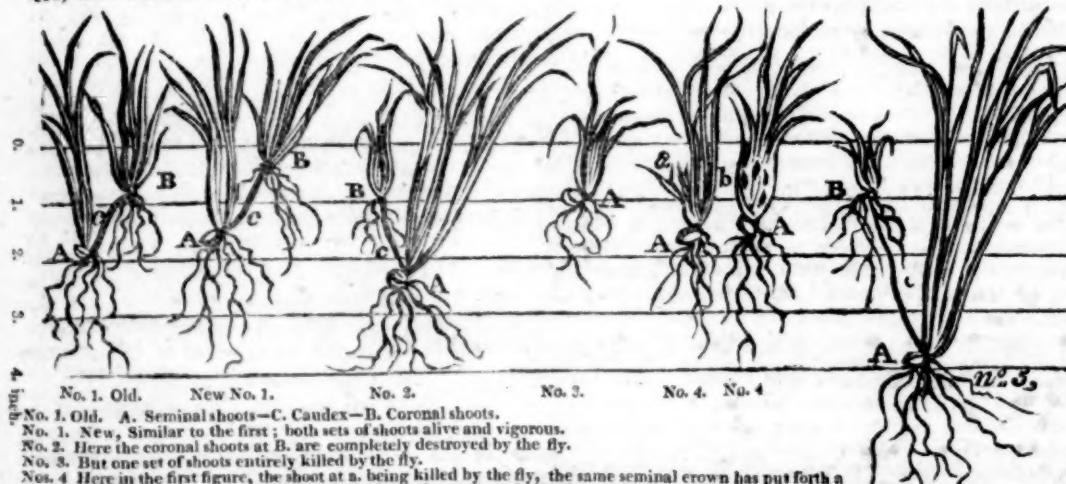
this, as in other things, that absolute precision is not essential to a considerable degree of success. Plants are endowed with an aptitude to flourish, and to mature their fruits and seeds under circumstances far from being the most favourable to the attainment of their highest degree of perfection. That their is some precise point, better suited than any other to ensure this result, I think we can have no reason to doubt; and it is surely very desirable to ascertain it. But to apply this reasoning to wheat. Since we can make very good crops, although the depth to which we bury the seed may vary from 1 to 3, 4 or 5 inches; there seems to be no valid ground, either for ridiculing each others practice in this particular, or for arraigning each others understanding. It is sufficiently difficult by *any means* to prevail on agricultural men, publicly to communicate their experience, either anonymously, or under their own proper names. Let us carefully then abstain from any thing calculated to prevent it; at least until we are in danger of being overdone with such kind of medicine. Perhaps when you get through this long epistle, you may think the writer himself in some danger of transgressing his own precept against too much physic of this kind. If he is, let him receive that sort of castigation which preaching one thing, and practising another, ought always to provoke. With every wish for the success of your highly laudable, and (as far as I can judge) judiciously conducted undertaking, in publishing the "American Farmer."

I remain, sir, your obed't servant,
JAMES M. GARNETT.

others, but certain it is, that pride, foolish pride, engendered by laziness, has taught too many young men to believe, that *any* calling, even though it be to lounge life away behind a pine counter, dealing out smoke-pipes and whiskey, is more respectable than farming! this ridiculous fancy must have had birth given to it by the fame which commercial men acquired, when even the humblest adventurer was more dignified than are the proudest and most successful of the present times: and when the title of merchant carried along with it a just import of respect and dignity. But the name has long since ceased to be the criterion of honour. Even shopkeepers have assumed this hitherto dignified title, and we find "*Merchants*" even down to our very cross roads, whilst the noble departments of *Mechanics*, the arts, and *Agriculture*, the first and last especially, the very pillars of our individual and national glory, have been abandoned, too generally abandoned, as if fit only for clowns and beggars! *Cincinnatus* nor Washington neither of them estimated those distinguished callings by such a standard as this. And it would be wisdom,—nay it would be humanity, it would be patriotism, in Americans to turn the current of their children's taste away from such falsely honoured callings, to irrigate, enrich and adorn the face of our beloved country, and by thus doing it honour and enrich themselves.

But "*we must have Lawyers.*" Well, be it so. But pray my dear boy, do not you be a lawyer: unless indeed you can be certain that nature has amply provided you with the *raw materials* and a good set of machinery to work them up. Look at the American bar, full of lawyers, office manufactured lawyers; but how few of nature's own make? Patrick Henry was indeed strongly marked, but he took the law as some people take the small pox, in the natural way; and if you can catch it thus then my dear boy be a lawyer.—And *we must have Physicians*; true, but then highly as I honour the healing art, do not be a physician, unless you can assure yourself of possessing an intuitive faculty for the profession, and unless your education shall be perfect in all the branches into which this profession runs. We have too many doctors now-a-days, and that may be one reason why we have so many deaths. Intemperance, and its companion idleness, kill about one half of mankind; and Doctors, so called, nearly the other. To be a physician implies a great deal. Nature and education must go hand-in-hand, or the practice must be in general a deathly affair. I love the healing art, but I do not like to see it undertaken by any, save those whom *Aesculapius* himself would delight to honour.

And *we must have Merchants,* very true, nor can I have any objections to your becoming a merchant, legitimately so called, provided you can command means of *your own*, and provided you have that vast compass of knowledge which is implied in the undertaking. Without these the ship is less liable to be overturned by the blasts which assail her, or the storms that often overwhelm her in the deep, than you would be to be ruined. And as to the local pin-counting, tape measuring calico-folding unfortunates, (for unfortunates



No. 1. Old. New No. 1. No. 2. No. 3. No. 4. No. 5.
No. 1. Old. A. Seminal shoots—C. Caudex—B. Coronal shoots.
No. 1. New. Similar to the first; both sets of shoots alive and vigorous.
No. 2. Here the coronal shoots at B. are completely destroyed by the fly.
No. 3. But one set of shoots entirely killed by the fly.
No. 4. Here in the first figure, the shoot at a. being killed by the fly, the same seminal crown has put forth a fresh set b. The second figure, here shows the maggots in the flax seed state, which have descended rather more than an inch below the surface.
No. 5. Here the coronal shoots at b. are entirely destroyed, and an abundant set of fresh shoots have put forth from the seminal root at A. which is at least four inches by actual measurement below the surface.
The individual plants from which these drawings were taken, were fair specimens selected from bundles of plants, numbered 1, 2, 3, 4, and 5, as above, and all perfectly illustrative of the phenomena before mentioned.

FOR THE AMERICAN FARMER.

"O happy, if he knew his happy state,
The swain, who free from bus'ness and debate,
Receives his easy food from nature's hand,
And first returns of cultivated land."

TO MY NEPHEW.

In a few years, my dear boy, you will come into the possession of eight hundred pounds, left you by your uncle F—— n. I thought I remarked, when I heard from you the other day, that you had not yet determined what profession or calling to adopt. But I thought I discovered a hankering after some one of the various callings which have, unfortunately for themselves, and for our country, fascinated too many of our youth for the last twenty or thirty years. Dressed out by ignorance in the gaudy trappings of a false gentility, these callings and others, though well enough when *properly chosen*, have led away from the great avenues of independence, and

happiness, thousands who have permitted themselves to be unwittingly fancy-smitten by them. Law, Physic, the compting-house, office, (even though it be the place of a mere copying clerk) and other avocations rise to the view, invested with ideal charms, absorbing all other thoughts, as if the *Mechanic arts*, and *Agriculture*, were fit only for clowns and slovens! I am no enemy to a judicious selection of any of these professions or callings. Lawyers may be useful, Physicians certainly are so, especially in our age of foolish luxury, so are merchants and clerks. But I can see no reason why every child now-a-days, should be taught to look out as soon as he can see, after one or other of these; and have no power over his vision by which to direct it to an observation of avocations, which, to say the *least* of them, are equally honourable, and certainly promise a larger portion of happiness.

Now there is no *reason* for this universal look-

they truly are) who crowd our towns and villages, (I know we must have such conveniences) but I never see one of these my fellow citizens, thus employed, unless he be lame or halt, or has been overtaken by some disabling calamity, without a sentiment of commiseration and pity! Who if he had health, and strength, would choose to imprison himself thus, and fade, and idle his life away in an employment fit only for the weaker sex, or for invalids, when the Earth invites, and pointing to her broad lap, bids the youth repair to her and reap health, wealth, and happiness? Pray never go behind a counter, unless you shall be doomed to it by some calamity that shall unfit you for the nobler honours of the field. And leave copying-clerk's births, to the unfortunate and decrepid; to the aged and worn-out, and to those who love to dream over a sort of endless vacuity, to whom thought is painful, and intellectual exertion too intolerable to be borne. Never consent to dangle your fine well made legs around a three-legged stool; nor cramp your breast over the edge of a writing desk, though it be made of mahogany, or covered with green cloth.

In my next I will point out more particularly the course I should love to see you enter upon; meanwhile I beg leave to assure you that I am sincerely your friend

FOR THE AMERICAN FARMER.

On Heat and Clothing.

We have all been for some time complaining so much of the heat, which so incessantly pours upon us, that I was induced to put together the following observations on *radiant heat, or free catoric*, and the manner in which the laws of radiation and reflection, may be practically applied to the comfort of man in those seasons which are disagreeably warm.

Experiments have proven that rays of heat are transmitted to us from the sun, accompanying those of light, yet distinct from them in every respect, but that of the velocity of their flight, and a nearly equal capability of reflection.—In addition to this reflectibility, heat can also be radiated. By radiation in contradistinction to reflection, is meant the tendency that heat has, to leave a body possessing it in a sensible state. This tendency like reflection is dependent on, and modified by the colour and condition of the surface of a body; and is but little influenced by the internal conducting powers of the substance. Bodies that radiate heat well, absorb it also equally well, when radiated on them. They consequently heat sooner than other bodies.

By reflection of course is understood, the throwing back again from a surface those rays of heat which fall upon it, and cannot readily enter the substance, on account of its peculiarities of surface.—A curious difference obtains between the process of radiation and that of reflection; and it is in availing ourselves of this difference, that we may render the laws of heat subservient to our comfort. It is a fact that a colour or surface which radiates or lets off heat well, reflects it badly; and on the contrary, the surface of a body, which from its gloss or colour reflects it well, radiates or loses its internal heat slowly. Polished surfaces and light colours re-

flect heat best, and resist our attempts to heat them, when we direct calorific rays upon them; but when once heated, they will retain their temperature longer, than substances with a rough surface, or a dark colour. But bodies of the latter description, radiate best what heat they contain, and of course cool soonest, as well as heat soonest.

Hence we see that the prudent housewife does more than merely consult her taste, when she heats her coffee in a dark vessel, and then retains it hot on the table in a highly polished silver coffee-pot or urn.—From this circumstance too, it is, that a white painted or stuccoed house throws off so much reflected heat, and absorbs so little, that it is always cooler in summer than another house, and on the contrary it is always warmer in winter; as it will not so readily let the heat which it possesses pass out of it.—From the principles laid down, we should also infer the propriety of white washing our sitting rooms in the winter, and dark washing them in the summer. And also that hats, umbrellas, parasols, and all other screens intended to keep off the heat of the sun, should be of a white colour. But to apply these remarks to clothing: it will follow that when the external heat is as great or greater than that of the body, we should wear white or light coloured clothes, to repel the flood of calorific rays that infringe upon us. Again if we are in the shade, where in hot weather the temperature is mostly below ninety-eight degrees (the heat of the human body,) we should wear dark clothes, to render ourselves more comfortable. This would let the superior temperature of the body be diminished by the free passage of heat from it. Heat always tends to an equilibrium, and soon effects it, where none of the above-named obstacles are interposed.

If we wish then to keep out heat, we must wear non radiating or reflecting colours; and the same also when we want to keep off excessive external heat. A man whose occupation leads him to be more out of doors than in the house, ought to wear light colours winter and summer; whereas one who pursues his business under cover, ought to wear black clothes in the summer and white in the winter.

July 7th, 1820.

FRANKLIN.

FOR THE AMERICAN FARMER.

ROADS AND CANALS.

Camden, S. C. 4th July, 1820.

SIR,—The highly useful character of your paper, together with its rapidly increasing circulation, induces me to hope you will pay the attention, now really become necessary, to the subject of roads. To those at a distance from the parts of the union where the high-ways receive due attention, it is really a subject of the last importance; and more especially in those states, where large sums of money are now expended in making roads, and in such a manner as in no way to promise a beneficial result. The modern approved and experienced theory of making them is abandoned, and not being made by contractors pledged to a faithful execution of their work, the public treasure will be fruitlessly

expended. Of the errors of their predecessors, the managers of these undertakings do not avail themselves, with a view to their avoidance for the future, and most especially in this state. For the modus operandi which has been the source of expense and failure in New York, (see a late statesman,) has been pursued *ab origine* in S. Carolina. However, leaving all this mismanagement and extravagance to speak, as it will and loudly too, at the meeting of the legislature, I would beg now to ask your opinion, and that of some of your numerous valuable correspondents on the subject of rail ways. As a very triumphant and decided proof of their success, I would quote to you the one framed by a Mr. Blenkinsop, of Leeds, (Eng.) on which he has fixed one steam wagon, which impels, I believe, 20 others, each conveying 2½ tons of coal, and at a very trivial expense. A view of the wagon is to be found in Blair's Preceptor, recently republished in Philadelphia, and would furnish a valuable addition to the numerous and beautiful wood-cuts, with which you have favoured your readers.

I am fearful of intruding on you a subject not popular, "roads, which" as Mr. Darby in his Emigrants' Guide well observes, "should precede instead of follow emigration," are altogether left to themselves, while rivers that in the more fruitful seasons as to water, are partially closed for 6 or 8 months in the year, are receiving sedulous attention. Towns and cities, that by the opening of a few road outlets might become doubly wealthy and populous, are waiting for a circuitous and uncertain channel by the means of rivers. These good people forget the rapid process of evaporation and absorption, going on in a climate so warm as the United States. They forget that where one person can use a navigation, one hundred can use a road. They forget that in a country abounding, as this now does, in the necessities of life, land may be made cheaper than water carriage. They forget the immense mass of capital heaped together by the united efforts of land carriers. They forget how rapid and easy communications in a country contribute to diminish local prejudices, and unite the feelings of its people.

It would be well if the gentlemen now engaged in Philadelphia, on the subject of internal manufactures, would take this part of the subject into their consideration; for while people in the Southern states find it more easy to procure either necessaries, conveniences, or luxuries from England or France, all the exertions of their eastern friends to supply them will be unavailable, and no advantage will be reaped to the United States from the low price of labour in the middle and Northern sections. This leads me to observe how useful it would be, to obtain an accurate account of the price of labour in the various parts of the Union, with a view to an equalization of its benefits. The national wealth that might be accumulated in this way would be immense;

for what is now forbidden by the vast expense would then be adopted, and in no more important instance than that of building. As an example of the fact, I would beg to state the general price in the upper parts of S. Carolina of bricklaying, the moderate charge of two dollars per diem, this has operated to the prevention of brick buildings in many instances, so as to now become imperatively necessary, at least wherev-

er it is practicable. But the state of the roads preclude that free communication, which circulates the labour of the country. It is such as to allow only men of wealth to travel. It keeps provisions high in one district, while it is rotting in another, as was the case eighteen months since in the middle of South Carolina, and southern counties of N. Carolina. Corn was selling here, and scarce, at \$1 00 and \$1 50, while at the same instant it was selling in Mecklingburgh, between 80 and 100 miles distant for 75 cents.

Proof upon proof could I adduce, but I hope it is unnecessary; however I would close the communication by asking if the state of Virginia had opened a road from Richmond and Petersburgh to the north east corner of Tennessee—another in a direction towards Augusta, (Geo.) What would not have been the commercial wealth they both would have amassed?

I am sir, yours, &c.

A CAMDONIAN.

P. S. When Brindley, the Duke of Bridgewater's Engineer, was before the House of Commons, in order to urge a canal bill, one of the members asked him very triumphantly, "and what Sir would you do with the rivers?" "I would keep them to fill my canals." This however was in a climate remarkable for its humidity. In this country, as remarkable for its aridity, if Brindley had been asked the question, I have little doubt he would have said, "to drain the soil." This is their legitimate use.

Some of the reasoning of a Camdonian every one must think just. In favour of good artificial roads of rail ways and of promoting the easy and cheap distribution of the products of labour, I accord with him fully, but we are at a loss to imagine why he seems to think it necessary to his argument to lay violent hands on rivers and canals, the best and cheapest in their uses of all possible highways; and further, how can a *drain* be useful in an *arid* soil, and how can a river be useful for that purpose?

Ed. Am. Far.

TO THE EDITOR OF THE AMERICAN FARMER.

Bonpland's useful exertions in the region watered by the river La Plata.

The distinguished naturalist, Mr. Bonpland, continues as much occupied as ever, at Buenos Ayres, in his Botanical and other pursuits. He is himself a colossus of industry and science.—Through the hon. S. L. Mitchell and C. A. Rodney, Esqrs. several particulars have reached us, concerning this amiable and valuable man.

Mr. Bonpland, entertains the warmest friendship for Mr. Rodney, from whom, among other good offices, he had received a box of the Sea-Island Cotton seed of Georgia. The Dictator, Francia, has granted him permission to visit the country which he governs, and of which every body entertains high notions. He believes he will enjoy the high satisfaction of planting the cotton of the Fredonian states in the soil of Paraguay, situated in about the 33d degree of south latitude, and he promises to proclaim to the world, if this agricultural experiment succeeds, the signal benefit that South America has derived from the north. Since the thanks of his fellow citizens from the warmer states had been tendered to

him, for his instrumentality in introducing the culture of the *Arabian Date bearing Palm* into South Carolina, Georgia, Alabama and Louisiana; Dr. Mitchell has on no occasion experienced a more cordial sentiment, than on learning the probable result of planting our Sea-Island cotton in Paraguay, for the benefit of the great family of man. Mr. B. since Mr. R's departure has made three excursions to the *Panama Islands* near Buenos Ayres. Those spots of earth, never before visited by any scientific explorer, afforded him a considerable number of plants, insects, birds, and other interesting objects. In the meantime his botanical garden has not been neglected, an establishment in which he procures and combines every thing that promises benefit to the country, or utility to science. Should this land be restored to quiet, and the inhabitants lay aside the ferocious spirit of making war upon each other, which so unhappily possesses them, the sciences would be truly the gainers. As soon as practicable Mr. B. intends to perform a journey through Paraguay. This gentleman professes the most lively desire to be useful to the United States, by sending seeds, roots, specimens, and articles of every kind, from the southern hemisphere, that we may desire from curiosity or improvement. It must be agreeable for our fellow citizens to know that measures have been taken, by the United States ship Constellation, to request a supply.

FOR THE AMERICAN FARMER.

THE EMPLOYMENT Of our Grain, Fruit, &c.

The employment of our grain, in the brewery and distillery, is an object of immense importance. It is said that from the state of the foreign molasses trade of 1819, we might rely in the next five years, upon 8 or 10,000,000 of gallons of *foreign* molasses being imported, of which 8,000,000 gallons would be used in preparing spirits and other drinks, our own distilleries from grain, fruit and the cane, including this *foreign* molasses, distilled, were computed in the A. D. 1818, to be 36,000,000 gallons of spirits, besides beer from grain and molasses. The government of Hayti or St. Domingo, having forbidden the importation of spirits, are manifestly determined to distil their molasses. It will no longer come to us. What we do get from other places must rise to a price too high for profitable distillation. We shall want as much grain then to make spirits and beer, in lieu of molasses as will supply the place of 8,000,000 gallons of that foreign molasses. This at two and a half gallons of spirit to the bushel, will occasion a new and great demand for 3,200,000 bushels of grain, and must seriously tend to keep up the price of our present crops of 1820.

All our grain, flour, and meal exported last year was less than 5,000,000 of bushels; so that the above new demand for grain in lieu of foreign molasses, will be more than sixty per cent upon our late exports. We recommend to the producers of grain, fruit, molasses of the cane, and all other materials for the brewery distillery, with domestic wine, cider and perry, the most serious and timely consideration of the obvious and sure effects of the prohibition of the importation of spirits into the kingdom of Hayti, which has been recently promulgated. The culture of 36,000,000 lbs. of sugar in 1819, with 140,000,000 lbs. of cotton and tobacco, and rice, have reduced our exports of grain, flour and meal one half. The growing consumption of our manufacturers, internal improvements and navigation, and the supplies for foreign and coasting seamen, have doubtless contributed. Our new cultures and our new occupations

have certainly reduced our *exported surplus* of grain, flour, and meal. We are not likely to have very heavy surpluses of these to send abroad. The improvement in the distillation and ripening of our domestic liquors should be remembered. The vine will aid us on the subject of liquors, in wine and brandy. We should try to supplant foreign distilled spirits by the cheap and good manufacture of our own. We yet import several millions of gallons of foreign spirits.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 25, 1820.

Among the labours in the field of American agricultural literature, the last address of Richard Peters, Esq. President of the Philadelphia agricultural Society, merits particular attention. It will be found in the 4th volume of that society's memoirs, under the title of "*Notices for Young Farmers,*" &c. as "*an epitome of good husbandry,*" in LV. pages. It is the 8th article in the table of contents, prefixed to the volume. Mr Peters, accustomed to all the walks of a liberal education and manners, has a peculiar facility in adapting himself to the youngest and the plainest men in the *corps of industry*. His epitome deserves an early republication, with his amendments, and a perfect index, as a first hand book for the states producing the disposable surplus of our bread grains, green escutens, and meat cattle, and as a book which will be useful as to general principles and views throughout the union. It is a concoction of the experience, reading, and reflection of a life through full half of which he has been practically agricultural, and in the habit of written and oral communications, with many very considerable men in that pursuit, of all parts of our union and various countries of Europe. Though distinctly and emphatically *practical*, from the turn of his life, conversation and character, this gentleman exhibits the real and diversified advantages of "*a book farmer,*" derived from the ancient pages of Cato, Varro and Columella, and those of Rozier and Sinclair, Chaptal, Young, and Davy, and his own American precursors and contemporaries. The four volumes of the Philadelphia Society's memoirs comprising a long series of years, constitute a monument of his patriotic, steady and beneficent exertions apparent on their face.

Present Prices of Country Produce in this Market.

Actual sales of Wheat—WHITE, 90 to 93 cents, declining—RED, 85 to 90 cts.—CORN, 42 to 45 cts—RYE, 40 to 42 cts.—OATS, 20 to 25 cts—HAY, per ton \$14 to \$15—STRAW, \$9 to \$11—HERRINGS, No. 1, \$2 75 to \$3—No. 2, \$2 12 $\frac{1}{2}$ to \$2 50—SHAD, No. 1, \$6 to \$6 50—Do. No. 2, \$5 to \$5 50—PORK, prime per cwt. \$14 to \$14 50—BEEF, from \$11 to \$12 50—FLOUR, from the wagons, \$4 25—WHISKEY from do. 35 to 36 cents—BUTTER, pr. lb. 20 to 25 cts.—EGGS, per dozen 12 to 15 cts—VEAL, per lb. 6 to 8 cts.—LAMB, per. qt. 37 $\frac{1}{2}$ to 50 cts—BEEF, prime pieces, 8 to 10 cts.—HAMS, 14 cts—MIDDLEDINGS, 10 cts—LIVE CATTLE, \$6—CHICKENS, per doz. \$2 to \$2 50—POTATOES, 37 $\frac{1}{2}$ to 50 cts—TAH, \$2 25 scarce—TURPENTINE, soft, \$2 25—SPIRITS, do. 35 cts—PITCH, \$2 25—BACON, hog round, 7 to 8 cts.—LARD, 11 to 12 cts.—PORK, prime 12 to 14 cts.—BLACK-EYE PEAS, 65 to 70 cts.—SHINGLES best, Deep Creek, \$8 50—Do. Small, \$4 75 to \$5—FLOORING PLANK, 54, \$2 26—London WHITE LEAD, \$4 25—American do. \$3 75—Boiled OIL, \$1 37 $\frac{1}{2}$ —FEATHERS, 50 to 62 $\frac{1}{2}$ cts.—COTTON, Upland, 20 to 21 cts.—Maryland TOBACCO, actual sales, 3 hds. from Anne Arundel, at \$17 50—1 do. at \$8—2 hds. from Montgomery, fired, at \$10 and \$14—4 do. from do. unfired, at \$8 50. 9 hds from Calvert County, 5 crop, at 78—4 do. second at \$4—3 hds. from Frederick, fired, wagon, at \$14—12 hds. from Charles county, at \$8 and \$13—1 lot do. do. at \$8 \$10 and \$13—No sales of Virginia TOBACCO.

JOHN S. SKINNER, EDITOR.